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ABSTRACT

The monograph examines educational services for gifted and talented children in Australia. Issues in the definition and identification of giftedness are examined, including the difficulties of evaluating potential, the effects of minority group culture upon identification, and the problems of underachievement. Issues and options in educational programs for the gifted and talented are explained to include enrichment, curriculum adaptation, and special interest centers. Characteristics of teachers, curriculum, student selection, philosophy, staff orientation, evaluation plan, and administration arrangement are considered. Current provisions in government schools in Australia are summarized for New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, Australian Capital Territory, and the Northern Territory. A final section suggests further considerations for teacher training, curriculum development, research, and support services. (CL)

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AUSTRALIA

THE EDUCATION OF GIFTED STUDENTS

A DISCUSSION PAPER

Schools Commission
Canberra
November 1980

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PREFACE

One area of education which is currently receiving increased comment both by educators and within the broader school community is the education of gifted students. The Commission wished to contribute to the examination of the issues involved through the preparation and distribution of a discussion paper.

Late in 1979 a drafting group was set up, comprising: Dr D. Mossenson (Chairman), Miss T. Cohen, Ms F. Colley, Mrs E. Constable, Mr K. Creed, Mr R. Day, Mr R. McNamara, Mrs M. Ruffels, Mr J. Shaw and Miss E. Tindale. The Commission is appreciative of the contribution made by this advisory panel to the preparation of the document.

Those involved with and interested in the education of gifted students are invited to respond to the paper in terms of both the broad principles and particular issues raised. The comments received by the end of the year will be taken into account by the Commission in the preparation of its Report for the 1982-84 Triennium, which will be published early in 1981.

As the Commission is currently formulating views about the education of gifted students, this paper should be viewed as a discussion starter, and not as a statement of Commission policy.

K.R. McKinnon

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INTRODUCTION

Discussion within the educational community on matters related to the education of gifted children has tended to be spasmodic and, as a consequence, the issues involved and the various options available in catering for gifted students have seldom been exhaustively examined. There is little agreement on what is involved in giftedness, its limits or how it is identified. There is also little agreement on the most appropriate way of providing education services for students who are identified, by whatever means, as being gifted.

Public discussion on issues related to the education of gifted students has increased over the last two or three years. Apart from the occasional article on the topic in the press, an increasing number of overseas visitors who have worked with, or designed programs for, gifted students have been visiting Australia and their views and opinions are being placed before parents, teachers and administrators. Given the heightened interest in the area, the time would seem appropriate to outline some of the major factors which appear to be relevant to a discussion on the provision of educational services for gifted students.

In a statement of this length it is possible to do no more than identify some of the principal issues. The paper begins by looking at some of the general issues involved in the education of gifted students and then attempts to identify the factors involved in defining giftedness, including a discussion on the areas of endeavour in which outstanding performers might be described as gifted. Following from this discussion is a section on the identification of gifted students and the associated topic of whether single or multiple standards should be applied in identifying students as gifted in various areas. A resume of the types of programs and services which have been and are being offered for gifted students is given, along with a summary of the provisions currently being made for gifted students in Australia. The final section of the paper looks at initiatives and approaches which might be followed in catering for gifted students in Australia.

ISSUES

There remains within the Australian educational community an ambivalence towards the education of gifted students. The various positions generally held can be identified somewhere along a continuum which might be characterised in the following way:

(a) there is no reason to provide specific educational services or programs for gifted students as they are the ones who gain most from the general comprehensive educational program;

(b) gifted students can best be catered for within the general comprehensive education program: however, there is a case for providing some supplementary assistance;

(c) gifted students require separate, and by definition, segregated, educational programs.

In 1961, Radford described the prevailing attitude in Australia as one of rejecting any suggestion that gifted children were "an elite whose abilities are to be sedulously fostered by teachers and facilities deliberately selected as the best available and therefore superior to those available to other children" (1). He indicated that he believed the major reason for this reluctance to make any special provisions for gifted students was based on the assumption that gifted students have ample opportunity at the higher secondary and tertiary level and will succeed at school without additional special help. At the same time, Radford believed that the Australian attitude was generally concerned that gifted children should have courses demanding effort; teachers adequately prepared with proper knowledge, suitable attitudes and skills; and reasonable facilities.

Seldom articulated, but sometimes linked to discussions on whether or not some special education provision should be made for gifted students, is a related fundamental issue, namely the most appropriate way of distributing what will always be limited financial resources among the various education areas. Often the discussion does not revolve round whether special provision should be made for the education of gifted students, but rather whether the limited funds available for education should be used to support programs for gifted students.

ASSUMPTIONS AND RATIONALE

The issues raised in the paper are based on the following assumptions:

(a) some students do have the potential to perform better than their age peers. This high level of potential can be associated with a wide range of endeavours;

(b) some students do perform better than their age peers. Again the performance level can be associated with a wide range of endeavours.

A study commissioned by the United Kingdom Department of Education and Science in 1975 found that, while the proportion of gifted students who remained unrecognised at school was unknown, "the evidence indicates that it is probably considerable, particularly among children coming from poor families, those living in educational priority areas, and immigrants" (2). As many studies on identification have shown, the proportion of underachieving children in any given group identified as gifted can be quite high. In the United States, several authorities (3) have claimed that gifted children are the most retarded of the school population in the disparity between their mental age and accomplishments.

In Australia, as elsewhere, there appears to be an attitude which the Plowden Report in the United Kingdom described in 1967 as "an egalitarian suspicion of an irrational obstacle" (4). As far as the Plowden Committee was concerned, this suspicion was a confused mixture of, among other things, dislike of privilege, doubts about intellectual tests and defensiveness about comprehensive schools. However, the Report concluded that, in spite of the real problem of identification, the particular needs of gifted children must be met (5).

In the United States, the Federal Commissioner of Education, in his report *Education of the Gifted and Talented*, presented to Congress in 1971, addressed the question of whether special provisions for gifted students were undemocratic. He answered the question by stating that if democratic educational practice is interpreted as the same education for all, then the answer is yes. If democratic education means appropriate educational opportunities and the right to education in keeping with one's ability to benefit, then the answer is no. If the answer to the question was yes, then all special educational programs would disappear (6). This comment echoed the 1958 Rockefeller Report on the *Pursuit of Excellence*, which stated that democracy is not to be conceived of as an invitation to share a common mediocrity, but as a system that allows each to expres and live up to the special excellence that is in him/her.

Since 1961 there have been a number of reports prepared in Australia on the issue of the educational needs of gifted students. The Dettman Report *Secondary Education in Western Australia* in 1969 observed that in view of the importance of the potential contribution to be made to society by the gifted their needs should not be overlooked (7). The Committee recommended that special provisions should be made for gifted students and saw these provisions taking the form of classes in specific subject areas in selected schools. The Report *Secondary Education in Tasmania* in 1977 commented on the considerable concern expressed to it that adequate provision was not being made for exceptional children, including the talented. It recommended that talented children should be given special attention in secondary schools "consistent with their need for balanced development", providing

them with opportunities to progress at their own rates and to achieve "self-cultivation" (8). In submitting its Report in 1977, the New South Wales Committee on the Education of the Talented Child stated: "The talented are possibly the most disadvantaged group in our schools for they generally have not received sufficient stimulation to achieve their full potential. Often they are easy to ignore or are considered a threat rather than a valuable resource. We believe education should allow all individuals to develop to their capacity, however different this may be." (9).

In the final Report of the *Select Committee on Education* in Queensland, issued in 1980, a number of recommendations are made in relation to the education of gifted students (10). While recommending that gifted students not be segregated into special schools or full-time classes, the Committee believed there was a need for work to be done on identification procedures. The Committee also recommended that teacher training institutions be approached with a view to having courses introduced for all trainee teachers dealing with the education of the talented, and the development of suitable short courses for in-service training.

DISTRIBUTING RESOURCES

Even if it is accepted that equality of educational opportunity does not mean identical treatment for all, there remains the difficulty that in certain circumstances provision for the gifted might reasonably be considered to amount to a qualitatively different education. Because of this, the provision of special education programs for gifted students is often seen to represent a form of elitism. While there is recognition that, like all students, those with special aptitudes need a curriculum and a school suited to their needs, there is nevertheless anxiety lest singling these children out in any way may lead them to view themselves as better than the rest. Similarly, while recognising the importance, for the national good, of expanding the talent pool in the arts and sciences by encouraging young people to develop their aptitudes, there is often an equal commitment to ensuring that the leaders remain close to the populace; that the ability to get along with everybody is of major importance; and that any school procedures which single students out as more able than the generality might jeopardise their sense of identity with, and acceptance by the common man (11).

An important principle which needs to oe addressed is whether special provisions for gifted children do involve such an appropriation of resources as to cause strains or deprivation in other areas. In other words, are there any grounds for this sector being singled out for special attention? Those who believe that special provision is necessary for gifted students often base their answer to this question on the argument of the individual rights of citizens in society. As

individuals, they have certain legitimate "needs" and society should provide resources so that there is the opportunity for these needs to be met. Another answer which is often given to the question of whether or not special provision should be made is that special attention for gifted students represents an investment with a guaranteed cost benefit to society. On this point, antagonism to the idea of "special" provision for the gifted may be lessened if the emphasis is less on "special" and more on "equitable". For example, it may readily be argued that the attention given in some Australian schools to the school's outstanding sporting performers should be offset by "more equal" regard to the abilities and special needs of the artistically and intellectually gifted.

Another general principle concerns the question of when any provision constitutes a special program or service. A program may be defined as "a pattern of provisions within the total range of school activities which is designed to meet the distinguishable needs and abilities of intellectually superior and talented children" (12). Ideally, then, an education program involves provisions which impinge on such broad areas of schooling as:

(a) administrative arrangements;
(b) curriculum development and modification;
(c) teaching methods.

The major issue would appear to be the nature of "special provisions" for the gifted. The question is not, therefore, should gifted children be regarded as a category deserving special educational provisions but rather how such provisions are to be made.

COMMUNITY ATTITUDES

The basic issue which the community is asked to consider in relation to the education of gifted children is that of reconciling attitudes towards two perceived priorities:

(a) the aim of equal opportunity for all students to obtain a broad and balanced education regardless of the school attended;

(b) the aim of providing special opportunities for those with particular abilities, interests and talents.

A recent project, conducted jointly by Murdoch University and the Western Australian Education Department (13), surveyed community attitudes in Western Australia in relation to the development of a range of high schools differing from each other in having special offerings and strengths in various curriculum areas, as well as different teaching styles and organisational methods. The survey found there was support for specialist schools provided there was no

consequent erosion of the range of subjects and the quality of offerings in *all* schools. Thus, there was concern that schools offering a special program exclusively for a highly-selected group of gifted children might narrow the range of curriculum options for the rest of the school population, by causing a concentration of specialist teachers and resources in centres not accessible to other interested students, even though such an arrangement would have certain economic benefits. Of various specialisation policy options presented in the survey, the strongest community support was for the concept of a "consortium" of schools which was seen to be a group of schools, each with its own special curriculum strengths. These schools would then be open to all students in their combined intake area.

Within Australia, the actual provision of educational services would tend to show support for the statement that the comprehensive nature of high schools adequately caters for the academically gifted. However, as Goldberg has pointed out (14), special provisions are sometimes made and accepted for those who show aptitude in the areas of mathematics and modern languages, while special provisions are seldom made for students with outstanding ability in history, literature, or across a range of subjects. Special mathematics classes are found in many schools and, while attendance is sometimes based on self-selection, the majority of pupils who enter these classes and then continue to the more advanced levels have high mathematical aptitude. Advanced courses for high aptitude students in modern languages are also not uncommon. While the broad issue of what areas should be treated under the heading of giftedness will be dealt with in the second section it is of interest to ask what accounts for the difference in attitude towards which areas should receive special attention. Is the distinction based on some unstated criteria for judging which abilities may legitimately be considered special and which ones are common and therefore expected of everyone?

(1) W.C. Radford, The Gifted Child in Australia in G. Bereday and J. Lauverys eds, *Year Book of Education 1961. Concepts of Excellence in Education*, London, Evans, 1961.

(2) E. Hoyle and J. Wilks, *Gifted Children and their Education*, London, Department of Education and Science, 1975.

(3) L.M. Terman and M.H. Oden, The Stanford Studies of the Gifted, *The Gifted Child*, Boston, Heath, 1951.

(4) B. Plowden (Chairman), *Children and their Primary Schools*, London, H.M.S.O., 1967.

(5) *Ibid.*

(6) United States Commissioner of Education, Report to Congress, *Education of the Gifted and Talented*, Washington, 1971.

(7) Dettman (Chairman), *Secondary Education in Western Australia*, Perth, 1969.

(8) *Secondary Education in Tasmania*, Hobart, Tasmanian Government Printer, 1977.

(9) *The Education of the Talented Child*, Report of the Committee appointed by the Minister for Education to enquire into the Education of the Talented Child, Sydney, New South Wales Department of Education, 1977.

(10) Final Report, *Select Committee on Education in Queensland*, Queensland Government Printer, Queensland, 1980.

(11) M. Goldberg, *Issues in Gifted/Talented Education in the United States and Australian Contexts*, 1979, In Publication.

(12) V.S. Ward, *The Gifted Student: A Manual for Program Development*, Atlanta, Georgia, Southern Regional Education Board, 1967.

(13) Docking, Watt, Joyce, *Report of the Specialist School Study*, Co-operative Research Series, Report No. 1, Western Australian Education Department, 1978.

(14) M. Goldberg, *op. cit.*

WHAT IS GIFTEDNESS?

ISSUES

The concept of giftedness is not clear and consequently there is no generally recognised definition of it. The very notion of a "gift" gives rise to the debate as to whether the quality or trait concerned, which by definition is considered of value in the prevailing cultural environment, is manifested purely as a genetic endowment or as a product of interaction between natural ability and life experiences. The popular concept of giftedness has been built on the example of the genius or prodigy, that is, on individuals who have demonstrated exceptional performance in one or a range of talents. Words like "talented", "gifted", "brilliant", "exceptional", "superior" and "able" abound, and are often used interchangeably.

There are two approaches to the identification and recogniton of giftedness: one, the unitary concept, generally based on quantifiable intelligence test results; and second, the multifaceted approach, which takes into account factors such as creativity and special abilities in a far wider range of areas.

Until about twenty years ago, the term "gifted" tended to be applied in educational and psychological circles to general intellectual ability, in the main quantifiable by intelligence tests. Under this unitary concept of giftedness, the only decision necessary was where to draw the line between the gifted and the non-gifted. Such an exercise is like trying to establish the line between tall and non-tall. Suggested cut-off points ranged accordingly from IQ 115 to 180. Even today there is a considerable body of opinion that favours IQ 140 as the appropriate point, marking off approximately 0.38 per cent of the population as gifted. If, for example, an IQ of 125 is chosen then approximately 5 per cent of any age group in Australia would qualify for the term gifted.

In some United States legislation, it is specified that the top 2 per cent of students be regarded as gifted students for the purposes of the funding of programs: this would be equal to about IQ 130. It must be stressed, however, that the size of the group to be designated as gifted will be smaller or larger depending on the definition and associated cut-off points. The use of specific cut-off points has a number of dangers, not the least being that such an approach can easily place some students out of the group quite unfairly.

Lucito (1) in 1963, identified five classes of definitions of giftedness. One was the psychonometric approach, based on quantifiable intelligence tests, described in the paragraph

above. The second category was based on defining talented persons as those who had achieved stature in one of the professions - an ex post facto approach to identification. A third group was composed of individuals who excelled in a range of areas, not only one particular skill or field of knowledge. Percentage definitions, where, say 5 per cent of all those involved in a field, would be said to be gifted comprised the fourth category. The fifth group identified by Lucito took into account creativity, and was based on the work by Guildford (2) on the structure of the intellect.

In the last twenty years, the multifaceted approach to giftedness has gained favour among educationalists. Warnings about exclusive reliance on intelligence tests as the criterion for giftedness followed research on the components of intellect which, in the case of Guildford (3), produced a three-dimensional classification of 120 possible different abilities. There remain, however, differences of opinion among psychologists as to the structure of ability.

The multifaceted approach has been broadened by emphasis given to factors of creativity and to specific abilities including musical, the visual and performing arts, mechanics, physical talents, linguistics and leadership. Once again there is disagreement over how such aspects of giftedness are interrelated, if at all. On the one hand, there is the approach which confines "gifted" to high competence in one area only: such an approach requires that the area designated be independent of other areas. Another approach is to apply the term to high performance in a wide variety of areas, thereby implying a measure of interaction. In the words of Freehill, "the competencies of the gifted person fluctuate from task to task but the level about which they fluctuate is high. Giftedness involves a confluence of superior capacities" (4).

Kirk's approach to multifaceted giftedness is to suggest that for practical purposes it should be thought of in general terms as simply a "superior ability to deal with facts, ideas or relationships, whether this ability comes from a high IQ or a less well-defined creativity". He maintains that to be highly endowed in an intellectual field requires a gifted intellect, but the direction which that intellect follows is dependent on many other factors such as experience, motivation, interest, emotional stability, hero worship, parental urgings and even chance (5).

Set down below are a number of definitions which have been used by various agencies in the past. The definitions quoted confirm the present tendency towards favouring the multifaceted approach:

(a) *Schools Council, England:*

"The term 'gifted' is used to indicate any child who is outstanding, in either a general or specific ability, in a relatively broad or narrow field of endeavour (2-6%)." (6)

(b) *New South Wales Committee on the Talented Child:*

"Talented students are an atypical group possessing exceptional abilities and capable of outstanding performances." (7)

(c) *United States of America Public Law 91-230, Section 806 of 1970:*

"Gifted and talented children are those identified by professionally qualified persons who, by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program, in order to realise their contributions to self and society.

Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:

(1) general intellectual ability
(2) specific academic aptitude
(3) creative or productive thinking
(4) leadership ability
(5) visual and performing arts
(6) psychomotor ability." (8)

(d) *United States of America Office of Education:*

"Gifted and talented children and youth are those identified at the pre-school, elementary, or secondary level as (i) possessing demonstrated or potential intellectual, creative, or specific academic abilities, or leadership capability, or talent in the performing or visual arts; and (ii) needing differentiated education or services beyond those being provided by the regular school system to the average student in order to realise these potentialities." (9)

With most multifaceted definitions, there is the danger that they tend to be general and as such are sometimes so broad as to cease to be functional. However, the alternatives, which relate to specifying particular areas of giftedness and particular standards to be met, are even less functional.

DETERMINING AREAS

Another issue, which often causes confusion in discussing educational programs and services for gifted students, is the difficulty of dealing with giftedness in various areas in the one general way. If, for example, it is true that there are four dimensions or modes which are seen as central to knowing:

(a) the rational-logical mode (cause and effect, deduction-induction, formal operations etc.);

(b) the symbolic mode (imagination, intuition, sensing, feeling, emoting, perception);

(c) the making and doing mode (constructing, creating, inventing, crafting);

(d) the evaluative mode (critical appraisal, aesthetic, moral, ethical judgement);

then the provision of programs and services for giftedness in relation to, and in relationships between, the various dimensions may need to be different.

Accepting the multifaceted approach to giftedness still leaves a number of issues unanswered. There is a need to determine the areas in which outstanding performance should be seen as giftedness. There is general agreement that giftedness involves some measure of "natural" or "inbuilt" ability. However, it is equally agreed that such ability is affected by the learning opportunities available and the environment in which these learning opportunities are carried through. As indicated in earlier comments, the narrow approach to giftedness which tended to concentrate on academic and intellectual achievement has been replaced by a broader approach.

Any list of talent areas which might receive special attention will give rise to comment and debate. Because of the political base of much educational decision-making, the areas of giftedness which have received special provision in the past have often received priority, not because of any planned educational decision, but rather as a reaction to outside events. The special attention given to the promotion of mathematical and scientific excellence in the late 1950s and 1960s, particularly in the United States of America, was a response to Russian space exploits. In a similar way, the added funding emphasis given to artistic and cultural areas in the early 1970s could be seen as a reaction to the realisation, within society generally, that technology was surely changing working patterns and consequently it was felt that added impetus should be given to leisure pursuits.

It would be extremely difficult to lay down specific definitions and cut-off points for giftedness in any society, and almost pointless in a culture where pluralism is valued. In a pluralist or multicultural society, allowance has to be made for the different cultural emphases arising from the multiplicity of cultural backgrounds that make up that society. Internal changes in society also need to be recognised: for example the changing preference of students away from science and mathematics and towards more leisure-type skills. Outside economic pressures can drastically alter the priorities of any society, and some allowance for this needs to be made in the process of identification and provision for educational services, particularly for the gifted.

A DEFINITION

As a basis for the points made in this paper, the following definition is suggested as one which is appropriate:

> "Gifted students are those possessing to an outstanding degree demonstrated competence or potential in intellectual, creative and/or other abilities and needing different education or services beyond those provided by the regular school."

This definition has a number of elements which need to be examined. The issue of "potential" is both an important one and one which, it is acknowledged, is fraught with difficulties. Kirk (10) and others have broadened the concept of giftedness by stressing the importance of potential as opposed to performance. As performance is affected by such variables as environment and motivation, an under-achieving student needs to be considered in terms of his potential and not overlooked because of his lack of performance. Martinson has stated that "the need in the 1970s is ... to define the gifted as including those with potential for lasting or significant contributions, as well as those who are actually achieving at a high level"(11).

The different cultural backgrounds of the groups that comprise a society are also important when the issue of potential is discussed. Unless efforts are made to identify potential aptitudes in all students, many will fail to develop latent talents, as particular skills are often not valued or not recognised by the home culture. The choice of which sport or which musical instrument to be played is often both a function of socio-economic status and cultural background. Consequently, soccer is often chosen by students from European backgrounds rather than rugby or Australian rules; and the violin and piano tend to be played by more students from high socio-economic groups than instruments like the guitar. On the broader front, the general approach by society to the lower place of sport and physical education in the education

of girls is another example. The identification of potential is therefore of great importance if students are to be in a position to find where their strengths and skills are, and are to develop latent gifts and talents.

Having stressed the importance of potential, it is also important to recognise the difficulties inherent in such a concept when related to giftedness. Most writers agree with Goldberg (12) that at present it is not possible to assess potential ability. In fact, it is not at all clear what such an assessment might look like. All assessments must rely on some evidence of performance, and mostly performance is, in large measure, a function of learning. The discussion of "potential" has most importance when related to the performance of disadvantaged groups. There is ample evidence to support the assertion that students from low socio-economic backgrounds perform poorly on standardised intellectual tests and also are low achievers in the academic area. The issue of potential is linked, in part, with issues related to identification which are discussed in the third section of this report.

(1) L. Lucito, *Creativity Traits*, Atlanta, Georgia State University, 1972.

(2) J.P. Guildford, *The Nature of Human Intelligence*, New York, McGraw Hill, 1967.

(3) *Ibid.*

(4) Quoted in P.D. Tannock, *The Education of Gifted Children : Background Notes*, Canberra, 1974.

(5) S.A. Kirk, *Educating Exceptional Children*, Boston, Houghton Mifflin Co., 1962.

(6) Quoted in *The Education of the Talented Child*, Report of the Committee appointed by the Minister for Education to enquire into the Education of the Talented Child, Sydney, New South Wales Department of Education, 1977.

(7) *Ibid.*

(8) Quoted in *Education of the Gifted and Talented*, Report to Congress by the Commissioner of Education, Washington, U.S. Government Printing Office, 1972, 2.

(9) *The Education of the Talented Child, op. cit.*

(10) Kirk, *op. cit.*

(11) R.A. Martinson, Issues in the Identification of the Gifted, *Exceptional Children*, September 13-16, 1966.

(12) M. Goldberg, *Issues in Gifted/Talented Education in the United States and Australian Contexts*, 1979, In Publication.

THE IDENTIFICATION OF GIFTED STUDENTS

ISSUES

One of the assumptions underlying this paper is that gifted students *do* exist. If such students exist, then it is necessary to be able to identify them, for special educational services can only be provided if identification is possible.

The term "identification" is generally used to cover the procedures employed both to screen gifted students from among the wider population and to select them for specialised programs. It is generally acknowledged that identification should include all the pertinent information which can be gathered about a student. In practice, the best has to be made of the limited sources of readily available information and associated procedures. Identification and screening procedures can be broadly classified as subjective or objective. Subjective procedures may include: teacher judgement, parental judgement, peer judgement, independent expert judgement and self appraisal. Objective procedures take in activities such as group and individual intelligence tests, tests of achievement and, more recently, measures of creativity.

Most experts agree that as many identification procedures as possible should be used in conjunction, as no single process is reliable enough to determine ability. Current opinion favours a mixture of both objective and subjective measures, varied to suit the field(s) of interest or ability in question.

ACHIEVEMENT VERSUS POTENTIAL

One of the major issues in identification of gifted students is whether to assess actual achievement or the potential for achievement. The former would involve rating performance in one or several subject areas, such as musical performance on an instrument, a portfolio of graphic work, examples of creative writing, execution of social or political leadership roles or the actual performance of mechanical tasks. Assessment of potential would derive from aptitude test scores, performance on specially designed exercises, observations of "natural" behaviour and/or ratings of personal characteristics. The latter approach assumes that, through an examination of behaviours which are correlates of high level achievement, or those which characterise high achievers in particular areas, relatively valid predictions can be made of the probability of future achievement.

While, ideally, it would be desirable to identify all individuals who have the potential for outstanding achievement and not only those who already evidence high level

attainments, in reality valid means for assessing potential ability are simply not available. While tests of intelligence may provide relatively objective, reliable measures of general intellectual ability, they give little information about specific aptitudes. In the arts areas, few theoretically defensible aptitude measures exist for discovering potential literary, musical, artistic, dramatic or dance ability. Generally, actual performance has to be relied upon. For some areas, little formal learning is required to enable the student to "perform", as in drawing or modelling. In musical performance, however, a student must have had the opportunity to learn to play a musical instrument before it is possible to demonstrate outstanding performance ability. This fact raises a major issue related to opportunity. Since learning an instrument is not a part of every child's home experience or school curriculum, some potentially talented musicians may never be given the opportunity to learn to play an instrument.

MINORITY AND DISADVANTAGED GROUPS

The achievement-versus-potential issue gains greater emphasis when the discussion is centred on the education of gifted students from minority and disadvantaged groups.

Aboriginal students often do not have the linguistic background in English to be able to cope with the normal school program and also usually have a cultural background which makes it unlikely that their real abilities will be shown by their performance in the classroom.

A similar range of linguistic and cultural differences apply to students from non-English-speaking backgrounds. The expectations of the home and the experiences offered by the home may be at odds with the expectations of the school. In addition, parents from these two groups are sometimes fearful of the school and its influence on the student, and see the home culture being lost by contact with the school. The close-knit family structure is often threatened by the apparent freedom promised to the student by the school. In these cases the customs of the dominant culture are often at odds with those of the family. The cultural clashes which can arise can be shown with reference to differing expectations for girls. Often parents will allow sons to pursue an education, but for girls marriage is sometimes seen as both the short- and long-term goal: as a result the educational opportunities for girls are more limited.

Another group of students whose particular educational needs must be remembered in any discussion on gifted students is the group living in isolated communities. Such communities are generally small and often do not provide the broad range of experiences and facilities, or the level of motivation which students in larger and more cosmopolitan communities have available to them, or the easy opportunity for contact

of a gifted child with other children of like ability and interests.

The issues surrounding the identification of, and special provisions for, gifted students from minority and disadvantaged groups have been the focus of political and educational controversies for some time. Opponents of the use of intelligence or aptitude measures in the identification of gifted children have often argued that the cultural bases of such tests and the method used to implement them are such that they discriminate against students from minority and other disadvantaged groups.

The use of standard assessment procedures for all students, regardless of socio-economic level, discriminates against those from low socio-economic level backgrounds, where exposure to the cultural values which provide the basis for the assessment does not occur. Such procedures also discriminate against Aboriginal students and students from non-English-speaking backgrounds where completely different cultural values and experiences may exist. It has not yet been possible to design an assessment procedure that is free of the cultural values of essentially middle-class researchers and teachers. Moreover, these values are often covert and are not easily identifiable. The exposure of students from minority and disadvantaged groups to supposedly common cultural values and experiences is not the same as the experience of students from the dominant culture who have grown up with the ethos of that dominant culture. Assessment procedures will have to be developed to identify gifted students from disadvantaged groups, based on their own standards, cultural values and experiences.

In summary, the needs of gifted students from minority and disadvantaged groups would seem to point to the necessity of using more than one single standard to determine giftedness. As environmental factors play a major part in educational performance, such factors must be taken into account when attempting to ensure that potential is translated into high performance.

UNDERACHIEVERS

Another area of concern in relation to identification is that of the gifted students who are underachieving. Like all students, gifted students, unless stimulated, can consistently fail to achieve the results which might be expected. By most judgements, they may not be seen as failing at all: assessment and performance may be high but they are by no means working to full capacity. It is recognised that such a situation can be due to a number of reasons, including peer pressure. At certain ages, the acceptance by one's peers is of paramount importance to a student. Standing out as different may be frightening psychologically. Underachievement could also be due to family pressures, as some families

feel threatened by the presence of a child who is so different intellectually or creatively from the other members of the family. A similar comment might be made regarding some teachers. Therefore, to please the family and to retain the accepted place in the family structure, the child may not perform to the level which is possible. Other students fail to achieve because of poor self-esteem, brought on by one cause or another, whether parents, teachers or peers.

IDENTIFICATION PROCEDURES

Identification procedures need to be varied in relation to the area of endeavour being discussed. Thus, the procedures used in relation to general academic performance will be different from the procedures followed in identifying giftedness in the artistic/cultural area.

Both parental and teacher judgements have a place to play in any identification process: however, the sole use of such judgements is questionable. Teacher judgement may overlook the underachieving or frustrated student, while selecting the conforming, apparently successful child. Parental judgement may be influenced on the one hand by the desire to have the child seen as just another normal child or by an over-enthusiastic approach to the child's work on the other. Parental judgement also suffers from the unavailability of a large enough sample for comparison.

Testing procedures of various types have been used for many years, and more are being developed to cater for the multi-faceted approach to giftedness. Group intelligence tests are commonly used in schools as an initial screening measure. These tests do not profess to give an overall indication of a student's performance. Individual intelligence tests are more reliable tests of intellectual ability, but are more costly and time-consuming to administer: they are, however, often used to identify particular students and abilities.

The identification of artistic and creative ability is also a difficult area in the identification process. Few tests have been developed and mostly the identification of these students has to come from teacher or parent nomination. Performance can be judged, possibly with the help of personnel from outside the school, but as mentioned earlier the area of potentiality has problems. In order to judge potentiality, tests have to be devised, or students must be given the opportunity to experiment in these areas. Not all parents or teachers have the necessary skills and background to judge artistic ability, so the use of outside expertise becomes important.

Closely allied to the identification of artistic ability is the area of technical giftedness and expertise, that is, ability in fields such as mechanical, electrical, carpentry and design. Similar problems of identification exist in

this area, and again it seems that several measures, such as testing, parent and teacher judgement, expert judgement and self-appraisal, are needed.

The identification of physical aptitude is generally left to the teachers and coaches of students, backed up by outside help from others in the community. Despite the emphasis given to sporting ability in Australia, students, once identified, must be given the opportunity to pursue and develop their particular interests and aptitudes both within the school and in the broader community.

The identification process, therefore, should be on-going and continuous. This means that all measures will need to be used throughout the school life of the student. No single process can be used just once early in school life: various measures will need to be used over the years, sometimes alone, but mostly in conjunction with other measures.

It must be continually borne in mind that none of these assessment measures alone can identify with absolute certainty the abilities or aptitudes of students. Much more research and development in this area is required before we can be more specific about the identification and selection process.

EDUCATION PROGRAMS AND SERVICES FOR THE GIFTED

ISSUES

It is possible to isolate three basic approaches to the provision of educational services for gifted students. The first is that the general comprehensive education system is so structured that gifted students can gain all they need educationally from it. At the other end of the spectrum is the approach which believes that the present general comprehensive education system is so structured that it cannot meet the needs of gifted students and what is required is separate provision. The third approach, which is a mixture of the two outlined previously, is that the normal education system can, by and large, provide the instruction and the experiences necessary, but the special needs of gifted students can be further reinforced by the provision of additional services, either during the normal school day, or outside it when necessary.

One difficulty encountered in discussing educational programs for the gifted is the inter-relationship which exists between administrative and organisational structures in school and curriculum. As an example of this inter-relationship, one procedure is "ability grouping" which, it has been argued, provides appropriate instruction for academically gifted students. Under this system, students of high ability are placed in one group and provided with a curriculum that attempts to cater more for their needs. The curriculum for this group will differ in quality and emphasis from that provided for the majority of the students. Both the identification of the students and their actual placement require administrative and structural decisions. The consequence of these decisions is often the provision of a "separate" curriculum or at least a curriculum which has been modified in some way from the curriculum being followed by the regular class.

In general, those who argue for the provision of special or additional educational services for gifted students adopt the following reasoning:

(a) the need for individualisation and for alternative learning patterns in the educational environment is recognised;

(b) there are areas, especially in the fields of music and dance, where, because of the nature of the skills required, considerable time must be spent at a comparatively early age to acquire a particular set of skills; and

(c) for intellectually gifted students, the traditional curriculum is often inadequate to provide anough learning experience and challenges for them to develop to the full.

OPTIONS

Ability grouping generally refers to such arrangements as special schools (at one extreme), part or full-time special classes, or in-class grouping in which an attempt is made to group students who are relatively close in ability or aptitude, with the intention of making teaching more effective and easier, and of making possible many teaching and learning experiences which cannot be realised within the normal classroom. Ability grouping also includes such practices as partial withdrawal for enrichment and extension activities, setting and streaming. It is generally believed that learning and academic achievement are aided by ability grouping, particularly by narrowing the grouping range, although some experts dispute this. While such practices have a good deal of support, the option is sometimes criticised as segregation which has such undesirable effects as developing snobbishness as part of the self-concept of children and depriving less able children of the example and stimulation said to be provided by their more able peers.

Acceleration is defined as "going through an education program more rapidly or at a younger age than the average child" (1) with the usual aim of progressing gifted students at a pace which makes the work more challenging and satisfying to them. The practice can take the forms of early admission, skipping or telescoping grades or advanced placement. It is considered to be especially appropriate for the very highly gifted. The practice has been much more favoured in the United States of America than in Australia, although Radford saw merit in advanced placement in universities as an experiment offering an incentive to schools to allow gifted children to develop at their own pace (2). It is criticised for causing gaps in the curriculum and difficulties in social and emotional adjustment, although once again this is often disputed (3).

Another practice is *enrichment*. This is usually defined as a broadening of the curriculum. It may be applied to one or more subjects and involve learning at a greater degree of difficulty and/or more learning experiences at the same difficulty level. It may be associated with some form of ability grouping, within or apart from a homogeneous class, and does not necessarily involve face-to-face teaching. Special assignments or seminars, individual projects or group work, independent study and vacation camps are some of the forms employed. Enrichment has been the most widely used provision for gifted students in Australia, probably because of its ready application in the normal homogeneous class situation. As with the other forms of administrative arrangements, its value in the learning process is often questioned, and it is criticised as superficial "window dressing" or time-filling. If enrichment is to provide worthwhile activities for students, administrative structures existing in schools must allow sufficient resources and time for students to benefit from it: "busy-work" or "more of the same" will result if staff are not able to use extra resources to develop enrichment activities, and if timetables and availability of rooms are not tailored to suit the existence of enrichment activities.

Another type of provision which is in fact closely linked to ability grouping and enrichment is that of *curriculum modification*. Such modifications may take the form of self-initiated learning programs unrestricted by a time schedule; courses designed to emphasise ideas, concepts and relationships, or an environment conducive to development of creative behaviour. It is often argued by those in favour of special provision that an open curriculum based on individual interests with large blocks of independent time is more appropriate for the gifted student than conventional or standardised curriculum requirements. In recent years there has been a spate of curriculum innovations for the gifted in academic subjects, and in the visual and performing arts, based on this assumption.

It is essential to refer again to the link between administrative arrangements and curriculum design and provision. If, for example, gifted students at the secondary level are supposedly provided with enrichment in English by being asked to study four novels, instead of, say, the normal three, then the pivotal question is how the study of the novels is approached rather than the number of novels studied. If the gifted students approach the study of the four novels in the same way as other students approach their three novels, then the fourth novel is best seen as little better than busy-work. The important aspect is not the number of novels studied, but rather the approach followed in studying the novels.

One other "type" or "group" of provisions which have been discussed recently in the Australian context are the so called *Special Interest Centres*. In reality such centres have their basis in the enrichment concept. These centres are generally discussed within the framework that the normal school situation provides basic support for all students (including the gifted). It is accepted that a number of students with special interests and/or aptitudes can further develop these interests and aptitudes if more intensive supplementary instruction and motivation is provided. Special Interest Centres would be organised along two basic lines:

(a) those established within existing schools; and

(b) those established outside existing schools.

In terms of those centres established within existing schools a variety of organisational structures could exist. They include:

(a) establishment of this type of centre catering for students from a number of schools in a school zone or region. Students from outside the zone could apply to attend and would be admitted on the basis of their interest record and aptitude(s);

(b) decentralisation of Special Interest Centres across a number of schools in a particular region. Specialists are often rotated across the centres. There is a possibility of duplication of resources in this approach and this could be a drawback. However, if each centre is designed to cater for a different activity, decentralisation may be highly desirable; and

(c) shared use approach whereby a Special Interest Centre is established by and for the use of several schools, possibly at different levels. In this type of facility there is the possibility of team teaching across normal school boundaries as well as the involvement of community resource personnel.

Another variation is the *cluster grouping of schools*, where a group of schools in an area or region combine resources and each individual school emphasises different areas of the curriculum. The various schools within the cluster contribute students to other schools for specific curriculum areas. Such a procedure makes effective use of scarce material and human resources. A variation of cluster grouping occurs when students are withdrawn from a group of schools for enrichment activities in a centre or specialist facility.

TEACHERS

Central to the discussion must be the approach used by the teacher. It is open to question as to whether all teachers

are suited to teaching gifted students. A study by W.E. Bishop (4) on high school teachers in Georgia who had been identified as successful by intellectually-gifted students, showed that these teachers were, in relation to other teachers, experienced, intellectually superior, had high achievement needs, had more favourable attitudes towards students, were more student-centred in their teaching approach, and were more systematic, stimulating and imaginative in the classroom. Barbe and Renzulli (5) maintain that teaching gifted students effectively requires an emphasis on the process of learning, in which the teacher is a learner-participant, rather than on the product of learning, or how the material is learned. It is in the area of teacher placement that the so-called conflict between the provision of educational services for gifted students and the matter of the equitable provision to other groups is often raised. On one hand, most agree that gifted students need to work with highly skilled staff, with people who have considerable expertise in various subject areas and with those who can stimulate involvement and act as intellectual/artistic/creative role models for their students. On the other hand, there is an equally strong opinion that the "best" teachers should be made available to those students who are not self-motivated, who need help in achieving even to a minimum standard. Given a limited pool of "excellent" teachers, to whom should they be assigned? The question was often raised in terms of fairness, but also reflects concerns about national priorities (6). Is it more important for society to provide the most able and talented with the best possible tuition so as to enable them to develop their special gifts and thus extend the pool of talents needed by society? Or is it more important that the best instructional talent be placed in the service of the average and below average learners to ensure some common level of attainment?

KEY PROVISIONS

While there is considerable discussion as to the most appropriate method of delivering educational services for gifted students, there is general agreement as to those characteristics which are identified as the necessary and key provisions in successful programs for gifted students. While these key provisions are summarised below it is interesting to note that they are in reality the attributes which most would list as the essentials for a sound education for all students.

The teacher: The New South Wales Committee on the Talented Child (7) believes strongly that "the teacher is the most significant element in meeting the needs of the talented. The strength of a program lies in the skills, abilities and attitudes of the professionals responsible for identifying talented pupils, planning and organising the learning environment, and facilitating learning."

Several studies overseas (8) have attempted to describe the teacher best suited to teaching the gifted: however, the characteristics found to be necessary in these teachers (high intelligence, sensitivity to creative expression, flexibility of standards, warmth and friendliness, high productivity, etc.), were also those same characteristics that most people would see as required in all teachers. Yet, it may also be true that because of factors such as training, experience, inclination and motivation, not all teachers are equipped to provide adequately for all students.

The curriculum: As mentioned earlier, a curriculum for gifted students should be recognisably different from the general program. In Renzulli's view (9), "a systematic and comprehensive program of studies should reach all children identified as gifted at every grade level and in all areas of the curriculum where giftedness is educationally different. The careful development of distinctive syllabi, methods and materials will help guard against a fragmentary or 'more of the same' conception of differential education. It may be that several different curricula will be needed so as to cater properly for the different levels of achievement."

Student selection procedures: It is suggested that as many as possible of the identifying procedures should be used, but with discrimination, and embracing the whole range of talents. Periodic screening may be necessary to obviate the overlooking of some gifted students. Identification and selection procedures should be carried out at least once annually. A cumulative record of each student should be maintained and continuously assessed. Transfer into and out of the program should be possible.

A statement of philosophy and objectives: The statement of a program's underlying philosophy and objectives should take into account the arguments for and against special programs, the broad and specific objectives, and the distinction between the objectives of general education and those with particular relevance to education of gifted students. The objectives of the gifted students program should be included within the general educational objectives of the school. The two should not be seen as mutually exclusive.

Staff orientation: It is important that for the greatest effectiveness a gifted student program should have the co-operation and support of all staff, including those not directly involved.

A plan of evaluation: The need for evidence of a program's effectiveness in relation to its philosophy and objectives should be recognised. Its effects and effectiveness need continuous evaluation.

Administrative arrangement: It would appear necessary for the person in charge of a program to be given sufficient time and resources to devote to it. The imposition of a special program as an extra assignment without a corresponding reduction in other duties, is not likely to be conducive to enthusiasm in tackling it.

(1) S.L. Pressey, Educational Acceleration, Occasional Procedure or Major Issues, in *Problems and Issues in the Education of Exceptional Children*, New York, Houghton Mifflin, 1971.

(2) W.C. Radford, The Gifted Child in Australia, in G. Bereday and J. Lauverys eds, *Yearbook of Education 1961. Concepts of Excellence in Education*, London, Evans, 1961.

(3) J.C. Stanley, *Mathematical Talent. Discovery, Description and Development*, Baltimore, The Johns Hopkins University Press, 1974.

(4) W.I. Bishop, Successful Teachers of the Gifted, *Exceptional Children*, No. 34, 1968.

(5) W.B. Barbe and J.S. Renzulli, *Psychology and Education of the Gifted*, New York, Wiley, 1975.

(6) M. Goldberg, *Issues in Gifted/Talented Education in the United States and Australian Contexts*, 1979, In Publication.

(7) *The Education of the Talented Child*, Report of the Committee appointed by the Minister for Education to enquire into the Education of the Talented Child, Sydney, New South Wales Department of Education, 1977.

(8) Bishop, *op. cit.*

(9) J.S. Renzulli, *New Directions in Creativity*, New York, Harper and Row, 1973.

PRESENT PROVISIONS IN AUSTRALIA

This section summarises the current provisions for gifted students in Australia. While some information is provided on non-government school programs, the concentration is on those in government schools.

GOVERNMENT SCHOOLS

New South Wales

A Committee appointed by the New South Wales Minister for Education to enquire into the education of the talented child published its report in 1977. Following the publication of the report, the Talented Child Review Committee was established to consider the recommendations contained in the report. All but three of the twenty-seven recommendations have been accepted and action taken to implement them.

Work in the area of the education of gifted students in New South Wales is proceeding at three levels within the education system. At the central level there is a curriculum consultant appointed within the New South Wales Department of Education's Directorate of Studies who is responsible for providing assistance and information and organising in-service activities on issues related to the education of gifted students. Three regions have appointed a specialist counsellor to work with students and schools in relation to gifted students. At the school level, teachers tailor their programs in an attempt to cater for all students having special needs.

At the primary level there are ten primary schools with Opportunity "C" classes. These classes cater for students in Years 5 and 6 and in most cases the selection is made on the basis of two group intelligence tests supplemented by teacher nomination. This selection is made at the end of Year 4. The organisation of these classes is the responsibility of the principal of the host school with no additional resources being made available. Teachers are allocated to the classes from the staff provided to the school under the staffing policy. Apart from the Opportunity "C" classes, a variety of other activities are provided, both within individual schools and within regions for gifted students. In one region mathematics study days are held, while in other regions resource teachers in areas such as music, drama and dance provide instruction both on a part-time and withdrawal basis and also assist in after-school classes. A number of camp-type programs are also organised in areas such as language arts, music and mathematics. There are twelve selective high schools in New South Wales. Of these four are designated as agricultural high schools (two being boarding

schools), one is the Conservatorium of Music High School and the other seven are district-based schools. While both sibling and parental rights exist in relation to enrolment at the selective high schools, selection is generally related to attainment on group intelligence tests along with mathematics and English aptitude scores. Teachers in these schools are not specially selected, and the general curriculum offered in most high schools is followed.

Apart from these selective high schools, individual schools sponsor activities related to the education of gifted children. Once again, resource teachers help in the organisation of specific activities and the organisation of camp-type activities is also popular in such areas as the arts, mathematics and physical education.

The Department of Education's Division of Services has recently produced an in-service package which is directly related to issues involved in the identification of gifted students. This package is made available to regions for the in-service training of teachers with an aim of providing them with the knowledge and skills necessary to identify gifted students.

Victoria

The Victorian Education Department has no specific policy related to the education of gifted children: however, the general educational policy stresses the development of the full potential of all students.

A special initiative of the Secondary Division has been the establishment of the Gifted Children's Task Force in 1977 to provide a consultancy service to teachers and schools. The Task Force has organised various schemes for teaching gifted children, as well as assisting in the development of curriculum materials, collecting resources, and assisting in the conduct of in-service activities for teachers and parents. The Task Force has given emphasis to the academic area.

A Primary Division Working Party was established early in 1980 to investigate the needs of gifted primary students and will make recommendations to the Department in this area. In the primary sector, there are no State-wide or regionally based programs for gifted students. Several programs operate on an inspectorate level and more commonly on a school-based level. These programs generally centre on individual needs and interests, using the curriculum as a means of meeting these needs. Provision is based mostly on limited withdrawal for enrichment activities in both the academic and performing arts/artistic areas. Schools providing these programs tend to rely on community expertise for the additional resources necessary. Several schools are planning

to introduce programs for gifted students. These will mostly involve upper-grade primary students in part-time withdrawal programs for enrichment purposes. The Gifted Children's Task Force is assisting in the development of some of these programs.

Thirteen cluster groups of secondary schools are presently operating, providing enrichment activities on a withdrawal basis for students who have been identified as gifted. For these programs, students from a number of schools carry through the activities in a central location. A further cluster group in an isolated rural community is in the planning stage. These cluster groups use the facilities and expertise of the community as well as those of the contributing schools. In 1979, one scheme withdrew Year 9 students from eight schools for one day per week to the local technical college for a program combining acceleration in English and mathematics as well as the teaching of units dealing with other skill areas and general enrichment activities. In 1979, forty-one secondary schools, in addition to those involved in the cluster goups, made special provision for gifted students, mostly using withdrawal from regular classes for enrichment activities.

Victoria has two selective-entry secondary schools. Approximately 70 per cent of the Year 9 entry to these schools is selected State-wide on the basis of academic aptitude tests. While both schools are strongly academic in nature, extension programs in music and the arts are provided.

A pilot program, involving the acceleration of students through six years of secondary schooling in four years, will commence in 1981. Students will be accelerated through the normal high school curriculum, and changes to HSC regulations will enable them to accumulate subjects over the four years. At present it is intended that thirty students per year will be taken into this group.

In the artistic and performing areas, individual work makes extended provision easier. Most secondary schools have instrumental music programs operating and there are five specialist music schools in the metropolitan area. The Victorian College of the Arts Technical School offers programs for students from all over Australia for those who have the talent and the desire to train for careers as dancers or musicians while at the same time pursuing secondary school studies.

As in other parts of Australia, workshops and camps are becoming more popular. These include creative writing, music and mathematics camps, and workshops organised by interested groups of teachers in many other subject areas.

The Victorian Association for Gifted and Talented Children and groups associated with it organise workshops, camps and

seminars for students, teachers and parents. Family outings and a Saturday afternoon club are also organised by the Association, which has close ties with practising teachers working with gifted students.

Queensland

The Education Department places emphasis on meeting the needs and interests of all students within the existing school structure, and also seeks to use community participation in schools to provide a wide variety of educational experiences. The Department relies to a large extent on the capabilities of classroom teachers to challenge and enrich gifted and other exceptional students. In this task teachers have the support of guidance officers, resource and advisory teachers, and, in secondary schools, subject specialists. The selection of appropriate programs for gifted students is very much the responsibility of the teacher and the school.

At the primary level, a small number of schools has undertaken a withdrawal program for students, with selection being on an IQ basis. At the secondary level, the introduction of school-based assessment and school-approved subjects has given opportunities for students to pursue curriculum areas of special interest, although specific curricula for the gifted have not been constructed.

The Association for Gifted and Talented Children provides special activities out-of-school for gifted students. As the Association comprises both parents and teachers, it is able to draw on much community expertise as well as the education profession for its activities.

South Australia

The Department issued a policy statement on intellectually gifted children in 1979. The statement indicated that students will ordinarily be educated in their neighbourhood schools and the necessary curriculum materials to allow for these students will be provided by the Department.

The Adaptive Education Project, a Reception-Year 12 initiative, was launched in 1976 for the purpose of assisting schools to adapt curriculum content, school and classroom organisation, and teaching methods to increase the flexibility and scope of the learning activities provided for all students. A full-time one-term in-service course in Adaptive Education is offered by the Adelaide College of the Arts and Education (Holbrooks Road campus), and teachers are released by the Department to undertake this course. A compulsory element within the course is a unit on the education of gifted students.

A Co-ordinator of Adaptive Education has been appointed by the Department, and support teachers for the "more able" have been employed in two metropolitan regions.

Several strategies have been developed by individual schools to cater for gifted students. One approach is the "lighthouse school" concept, where one school is designated as a centre, and children and teachers from neighbouring schools and the region use this resource: at the secondary level, special language and music schools are examples of this type of approach.

Learning centres have been established in both primary and secondary schools, where students attend the special programs on a part-time basis. The centres provide resources, work areas for study, tutoring and seminars. Special classes in various academic areas, on a full- or part-time basis, are provided in some schools. Within these classes, enrichment activities for students who have mastered core curriculum content enable them to engage in more thorough investigations into subjects not normally included in the curriculum.

Programs are initiated by interested principals and staff, and vary from year to year, according to perceived needs and the staffing provided. Ability grouping is widespread in the areas of mathematics and the language arts, while a number of schools provide courses in modern languages. Support teachers are provided to assist teachers develop programs for gifted students and curriculum materials for gifted students are currently being developed. A special sub-committee of the Central Curriculum Committee looks at all curriculum materials and provides input on the needs of gifted students.

Peripatetic music teachers provide tuition for musically gifted students, and these students are also involved in school-based musical and dramatic performances. A music camp is held each year for primary level students with outstanding musical talent.

In-service assistance for teachers of gifted students is provided by Hartley College of Advanced Education and the Adelaide College of the Arts and Education (Holbrooks Road campus) and Teachers' Centres. In addition, continuous ongoing workshops at the regional and school level are also provided to assist teachers working with gifted students. The Special Education Resource Unit (SERU) is gathering resources for all teachers of students with special needs, including gifted.

The Gifted and Talented Children's Association provides out-of-school activities for gifted children. These activities provide enrichment as well as extension, aimed at covering areas not treated within the normal school curriculum.

Western Australia

Special provision for creatively-oriented secondary students was established in 1967. In an attempt to focus and formalise a range of existing provisions, a policy document was issued in June 1978. This is used to assist existing advisory staff working in the area of gifted students and to give indications for future development. The document defines a gifted student as "one who demonstrates outstanding capacities and/or potential in intellectual skills, creative thought or action, or areas of special ability. The term 'talented' is used to describe a student who may possess an outstanding ability in a particular skill area".

Based on experience, the present policy statement is being revised and a number of additional and more specific documents relating to aspects of education for gifted and talented students are being prepared. One document will outline the identification procedures to be used as the basis for the admission of students to gifted programs, and for the planning and development of those programs.

A Project Group has been established to monitor programs, to develop additional departmental initiatives for gifted students (particularly at the early childhood and secondary levels) and to develop mechanisms, structures and procedures appropriate to the needs of remote and isolated gifted students. A smaller task force is developing a methodology for the identification and treatment of culturally disadvantaged gifted students, with special emphasis upon early identification at the primary school level.

A total of nine special programs are presently operating in primary schools. Each program has a different design base, in the sense that varying organisational modes are being piloted and monitored to reveal information which will be of value when the programs become generalised in 1981. The programs range through from a total withdrawal program for Years 6-7 classes, to partial withdrawal or special interest centre programs. One partial withdrawal program is concerned with the underachieving and/or disruptive gifted student while another is a day-release program in which students from Years 3-7 undergo a combined acceleration-enrichment program.

In secondary schools, it is somewhat traditional to include gifted students in specialist schools, for example in the areas of music, art, dance and drama. Academically gifted students are usually catered for in the advanced placement categories of the normal school-class structures. However, a family-grouped Years 8-11 class has been established in one senior high school, with admission to the group being based on an achievement/potential decision. It is intended that the class should take accelerated primary students as well as suitable secondary students from a loosely defined

geographic area. Curriculum development for the class is the responsibility of senior teachers within the school, who are also developing a tutorial/mentor approach, using expertise beyond the school where appropriate.

A senior teacher has been released on a part-time basis to work with the Gifted and Talented Children's Association in the development of a wide-ranging and sophisticated series of out-of-school activities. This Program (Probus) now has around two hundred activities, and utilises departmental facilities and community expertise as a combined force for educational excellence.

A series of camps for gifted primary and secondary students has been developed by the Department, offering interest areas such as science, social studies, mathematics and creative writing.

Additional efforts are being made in the area of curriculum development including the production of materials in linguistics, mathematics, the social sciences, and the provision of a resource centre for the collection of materials appropriate to gifted programs.

Tasmania

No specific policy guidelines for the education of gifted students have been issued by the Education Department although the general Departmental policy stresses the development of all students.

In March 1977, the Report, *Secondary Education in Tasmania*, drew attention to the needs of exceptional and talented students and the desirability of individual schools taking advantage of school autonomy to provide programs for these students within normal school activities. The Department provided funds to produce a booklet containing information on identification of gifted students, and suggested activities in subject areas for these students to assist teachers in planning and developing such programs.

Generally, enrichment activities and withdrawal for short periods of time are the favoured methods used by schools. The education system is organised on a regional basis, and programs vary from region to region, and within regions from school to school. For example, in the Northern Region withdrawal classes for primary students are held in a number of schools in mathematics, English, speech and drama, social science and art. There is also an annual creative writing camp for students with special aptitude in that field. The camp caters for thirty students from fifteen primary schools. A science camp, organised along the same lines, is conducted using teacher nomination to select the participants. In the North-West Region, partial withdrawal in Years 3-6 is

provided at a number of schools, and in the Southern Region, individual teachers implement programs: some schools have longitudinal groups withdrawn for extension and enrichment activities.

At the secondary level, interests and talents are catered for by varying levels of subject and interest areas. Extra tuition is provided, on a State-wide basis, for students showing aptitude in art and music, and an "artists in the field" program provides extension and enrichment in the performing arts.

Associations of interested parents and teachers have been formed in two regions to provide extra programs for gifted students. The Southern Teachers Centre in Hobart assists in providing programs called "Explorers Unlimited", which enable gifted students to pursue interests and talents with the assistance of experts in the community.

Australian Capital Territory

The A.C.T. Schools Authority has no specific provision for gifted students. Instead, the trend since the late 1960s in both primary and secondary schools has been towards individual development and progression within deliberately heterogeneous groupings. Primary school organisation and teaching style have focussed attention more readily on individual interests, abilities and difficulties. Within the high schools and secondary colleges, a wide variety of courses caters for a range of interests and abilities. Until 1979, no specific provision was made by any school except that contained in individual enrichment programs or small group extension plans of work. Two pilot programs, one primary and one secondary, operated in 1979: the secondary one is still continuing, stressing extension in academic subjects and enrichment in special interests. The Authority is evaluating both programs.

An Association for Gifted and Talented Children has very recently been formed in the A.C.T. and using community expertise it hopes to provide activities for such students during out-of-school hours.

Northern Territory

As a result of discussions in late 1976 on the desirability of a co-ordinated approach to the needs of gifted students, a Special Adviser (Gifted Children) was appointed to research the particular needs of these students and to provide an advisory service to schools. With the establishment of self-government, the Department has adopted a policy of "equal opportunity for all through the provision of an appropriate education for all": the concept of special provision for gifted students is an integral and firm part of this policy. There are now three full-time personnel working in an advisory capacity with teachers of the gifted.

Many schools, both primary and secondary, provide special programs: selection is based on IQ testing, achievement testing and teacher nomination, as well as providing for particular talents in specific subject areas. At the primary level, ability-grouping (full- and part-time classes) and enrichment covering the whole range of subjects and special interests are practised. At the secondary level, gifted programs cover a wide range of subjects and special interests: streaming and part-time withdrawal groups are used. Three residential colleges were established for Aboriginal secondary students who show outstanding academic achievement in primary school and who are assessed as being able to cope with a bicultural situation.

Two conferences have been held, in 1978 and 1979, dealing with the educational needs of gifted students. Support is also given by a parents' association, Education Unlimited: the Association conducts a May vacation school involving students, parents, teachers and interested community members.

NON-GOVERNMENT SCHOOLS

There are difficulties in gathering information on programs in the non-government sector, because of the very nature and independence of the schools involved.

Within the Catholic systemic schools provisions are sometimes made by the teachers of gifted students, using enrichment and extension programs for individual students as appropriate.

Some non-systemic schools sometimes cater for specific programs, based on enrichment activities, full- and part-time withdrawal classes and extra-curricular activities. In a few cases, policies are stated and implemented as an acknowledgement of an awareness of gifted students within the normal classroom. In other cases, schools consider that provision is made for gifted students by virtue of small school and class size; individual attention and curriculum structure; staffing and facility provisions; and extra-curricular activities. Most of the programs favour enrichment and extension activities, particularly for English, mathematics and fine arts, generally on a withdrawal basis for one or two hours per week.

POSSIBLE INITIATIVES AND APPROACHES

Arrangements that may be conducive to the identification and fostering of giftedness in students have been shown to range over a broad spectrum - from enrichment in regular classes, specialist teaching, support from outside the school, early admission and acceleration, streaming, specific purpose institutions, to lengthening the school day and year. One common characteristic underpinning these options is an adherence to the notion of individualised teaching and learning.

The basic question thus becomes: how can individualised education be arranged for all students, especially those of exceptional talent in certain fields? This paper is intended to discuss important issues related to this question - not to provide definitive answers. In the following section an attempt will be made to identify areas where further work and development might be undertaken. While all children ought to be encouraged to the full in those activities in which they show particular talent, there are nonetheless several fundamental considerations which must be considered such as the need for all students to have opportunities for full development of their talents, the pedagogical and social problems associated with differentiation and labelling, and the practical limits of institutional flexibility.

TEACHER TRAINING

As with the provision of educational services generally, the role of the teacher is central not only in the provision of the educational programs and services for gifted students but also in the identification process. No matter what form of program is finally decided upon, the need for skilled, perceptive teachers is paramount. The need for teachers to be aware of the major issues involved in the education of gifted students raises the issue of teacher training at both the pre-service and in-service level. Currently there would appear to be little emphasis given to issues involved in educating gifted students at either level.

Given the general approach followed by institutions offering teacher training, which concentrates on providing a broad liberal education for the trainees, it is probably not surprising that few institutions provide specific identifiable units in the area of the education of gifted students. In a survey carried out by the Schools Commission in July 1979, contact was made with all tertiary institutions in Australia providing some form of teacher training at the pre-service level. Institutions were asked to indicate what provision, if any, was made for courses or electives related to the topic of gifted students. Some 80 per cent of the institutions approached responded to the request for

information. Eight institutions offered units at the undergraduate level specifically on giftedness or creativity while a further twenty-one institutions offered units on the education of exceptional or atypical students which included some study on the attributes and needs of the gifted. Time spent on the units varied from two to three hours (which was the mean), up to twenty hours.

Sixteen other institutions offered units, other than on exceptionality, which include material on giftedness. These are largely units on the psychology of difference or on curriculum development. In these cases the time spent on the gifted area appeared to range from three to twelve hours.

Apart from the provisions listed above, very few other institutions made provision for issues related to the education of gifted students, although two institutions offered complete units on giftedness at the post-graduate level. It would appear essential for institutions engaged in the preparation of teachers to provide opportunities for the major issues related to giftedness to be raised and studied.

While there has been an increase in the number of in-service courses devoted to the topic of giftedness, such courses are still relatively rare. At the in-service level a need exists for the provision of courses which will not only provide information on theoretical aspects of the area but provide a forum for teachers to exchange ideas on programs being implemented and initiatives being taken.

CURRICULUM DEVELOPMENT

Like teacher training this area is vital to the development of suitable programs for gifted students. Current approaches to programs for gifted students emphasise the crucial importance of linking curriculum to the cognitive, artistic or skill levels at which students perform. Whether students are enabled to move at a more rapid pace than normal through a body of knowledge, are given opportunities to expand their understanding, engage in more "practice" or explore topics of special interest, depends on the nature of the field in which their aptitudes lie. Whatever the activities in which gifted students are encouraged to engage, they must tap the very characteristics which led to the students' identification as gifted. The courses of study must engage the students in performance at a higher intellectural or creative level than would be expected of the generality. And no matter how appropriate the content may be to the field of endeavour or the instructional mode to the high abilities of the students, effective programs need to be flexible enough to accommodate individual differences in terms of motivation, interests and learning styles. The curriculum process is vital.

In Australia little has so far been done in the curriculum area. Individual teachers have developed material which they believe will be appropriate to gifted students. If the curriculum for gifted students has specific elements which should always be taken into account (for example, be future oriented, be abstract in nature, be open ended and be research- and skill-based), then it would be helpful if some guidelines were available to teachers which provide information on how appropriate curriculum and associated support materials might be prepared.

RESEARCH

While a good deal of research into the education of gifted students has been carried out in the United States, very little has been undertaken in Australia. If effective programs are to be introduced then they should be accompanied and supported by competent research.

As so little research has so far been carried out, the possibilities for developing a research program in the area are numerous. There are many areas where crucial information is lacking and it is exceptionally difficult to construct worthwhile educational programs without basic information. In a paper which will be published shortly, Goldberg (1) lists a range of areas which might be considered in developing a cross national research program in the United States and Australia in the area of the education of gifted students. Among the research areas listed by Goldberg are studies into community attitudes to the provision of special education programs for gifted students including the socio-political situation and the relationship, if any, between the provision of special programs and elitism.

Apart from any cross national research program, there are a number of areas which should be studied in relation to the educational process and the provision of programs in Australia. Such research might concern itself with:

(a) the identification process and related issue of whether different standards should be applied for students from minority and disadvantaged groups;

(b) the selection process, including issues raised by the potential versus achievement discussion;

(c) the evaluation of special programs for gifted students;

(d) the effect of different organisational patterns in schools.

SUPPORT SERVICES

As teachers tackle the issues involved in the education of gifted students, there would appear to be a need to provide support both at the level of the individual teacher and at the school level. A well-developed plan of in-service activities allied to sound curriculum development guidelines would be of assistance as long as teachers were made aware of its existence.

However, apart from these areas, there appears to be a need to build into education systems support structures in the form of advisory services for teachers and the undertaking of research and the subsequent dissemination of the results of the research.

In terms of support services for both teachers and students, a number of associations for gifted students have been established throughout Australia which not only provide an opportunity for discussion but also arrange activities for students.

SCHOOLS COMMISSION STANCE

The Schools Commission believes it important to address openly questions such as:

- can the provision of special educational services for gifted students be seen as consistent with the goal of schooling being socially comprehensive?
- can extra provision for gifted students be regarded as equitable in terms of equality of opportunity and the encouragement of all children to achieve their full potential?
- are students with special talents really held back by the way their schooling is provided?

The answers to such questions may be complex and hedged with reservations. The Commission believes, however, that the complexities should not lead to a paralysis of thought and action-research about appropriate provisions. It is interested in co-operating with other Commonwealth agencies and education authorities in the States and Territories in activities which will provide a leading edge to thought and practice in the area. In this regard the following avenues will be explored:

(a) *Curriculum Development:* Collaboration between the Curriculum Development Centre and the Commission to investigate mounting a project aimed at providing teachers with background information on the development of curriculum for gifted students.

(b) *Research:* Joint sponsorship by the Commission and the Educational Research and Development Committee of policy analysis and action-research in the area. ERDC has indicated that the area of giftedness should receive more attention and it has already supported some projects.

(c) *Support of Pilot Projects:* From the limited funds available in the Commission's Special Projects Program, support of a number of pilot projects of national significance in the area of the education of gifted students. In particular, investigations need to be undertaken to examine the feasibility of the establishment of a small number of special interest centres along lines proposed by the Commission in its Report for the 1976-78 Triennium.

(d) *Overseas Visitors:* Continued encouragement and support of visits to Australia by key experts in the area of the education of gifted students.

(e) *Information Network:* While activity in the area of special provision for gifted students throughout Australia is still very much in its formative stage, there are nonetheless interesting ventures being supported. Information on programs being implemented throughout Australia is not well disseminated and measures to remedy this must be taken.

(1) M. Goldberg, *Issues in Gifted/Talented Education in the United States and Australian Contexts*, 1979, In Publication.